

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONCIDATATION
10/615,178	07/08/2003	Douglas A. Soller	J-3862	CONFIRMATION NO.
28165 75	10,20,2001		EXAM	INER
S.C. JOHNSON & SON, INC. 1525 HOWE STREET		•	COLE, LAURA C	
RACINE, WI			ART UNIT	PAPER NUMBER
			1744	
		·	DATE MAILED: 10/26/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

			//(
	Application No.	Applicant(s)	<u>+</u>
Office Action Summary	10/615,178	SOLLER ET AL.	
Ome Action Summary	Examiner	Art Unit	
The MAII INC DATE of this communication	Laura C Cole	1744	
The MAILING DATE of this communication a Period for Reply	appears on the cover sheet wi	th the correspondence address -	**
A SHORTENED STATUTORY PERIOD FOR REF THE MAILING DATE OF THIS COMMUNICATION  - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication.  If the period for reply specified above is less than thirty (30) days, ar  If NO period for reply is specified above, the maximum statutory perions  - Failure to reply within the set or extended period for reply will, by state Any reply received by the Office later than three months after the mate armed patent term adjustment. See 37 CFR 1.704(b).	R 1.136(a). In no event, however, may a re- reply within the statutory minimum of thirty riod will apply and will expire SIX (6) MONT	reply be timely filed  ty (30) days will be considered timely.  ITHS from the mailing date of this communica	ation.
Status			
1) Responsive to communication(s) filed on 22	2 luly 2004		
l •	his action is non-final.		
3)☐ Since this application is in condition for allow		ers prosecution as to the merits	o io
closed in accordance with the practice under	r Ex parte Quayle, 1935 C.D	. 11. 453 O.G. 213.	) IS
Disposition of Claims			
4) Claim(s) <u>1-47</u> is/are pending in the application			
4a) Of the above claim(s) is/are withdr			
5) Claim(s) is/are allowed.	awn from consideration.		
6)⊠ Claim(s) <u>1-23 and 28-47</u> is/are rejected.	•	•	
7)⊠ Claim(s) <u>24-27</u> is/are objected to.			
8) Claim(s) are subject to restriction and	Var alastian requirement		
, say and analysis to recall distribution	or election requirement.		
Application Papers		. 0	
9)☐ The specification is objected to by the Examir	ner.		
10)⊠ The drawing(s) filed on <u>17 October 2003</u> is/ar	re: a)□ accepted or b)⊠ obj	viected to by the Examiner.	
Applicant may not request that any objection to the	ne drawing(s) be held in abeyanc	ce. See 37 CFR 1.85(a).	
Replacement drawing sheet(s) including the corre	ection is required if the drawing(s	s) is objected to. See 37 CFR 1.121	(d) <sub>-</sub>
11)☐ The oath or declaration is objected to by the E	Examiner. Note the attached	Office Action or form PTO-152.	(4).
Priority under 35 U.S.C. § 119		·	
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:	n priority under 35 U.S.C. § 1	119(a)-(d) or (f).	
1. Certified copies of the priority documen	-t- barra baan raaniyad	•	
2. Certified copies of the priority documen	ats have been received in An		
3. Copies of the certified copies of the price.	ority documents have been re	olication No	
application from the International Burea	an (PCT Rule 17 2/a))	ceived in this National Stage	
* See the attached detailed Office action for a list	it of the certified copies not re	acaived	
	101 mo 001 mou 00p.00	Ceiveu.	
Attachment(s)			
1) Notice of References Cited (PTO-892)  Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Sum	nmary (PTO-413)	•
<ul> <li>House of Dialisperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> <li>Paper No(s)/Mail Date <u>923,811,708,116</u>.</li> </ul>	Paper No(s)/N  5) Notice of Infor  6) Other:	Mail Date  rmal Patent Application (PTO-152) .	
S. Patent and Trademark Office			

U.S. Patent and Trademark Office PTOL-326 (Rev. 1-04)

#### **DETAILED ACTION**

1. The Applicant filed a Preliminary Amendment on 22 July 2004, and it is noted that the "Remarks" on Page 8 do not match the pending Claims. The "Remarks" discusses a new claim "48", however there is not a claim 48 pending in the Application.

### Information Disclosure Statement

- 2. In the Information Disclosure Statement of 08 July 2003, a reference in the fourth line on Page 2 is not included in the file of this case. Another copy of this cited document is requested in order for consideration.
- 3. Reference 5630243 (#AD) of the Information Disclosure Statement of 23 September 2003 is a duplicate of the reference (5630243) on the fourth line of the Information Disclosure Statement of 11 August 2003. Since they are duplicates, the one found on the Information Disclosure Statement of 23 September 2003 has a line drawn through it.

# Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "27" (Figures 1 and 2) and "33" (Figure 2). Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as

Art Unit: 1744

per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

- 5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "56" has been used to designate both a switch back (Page 18 Line 19; Figure 11) and a cover (Page 19 Line 10; Figure 13). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
- 6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "five external side surfaces" (Claim 14) and the "apertured" abrasive layer (Claim 46) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if

Art Unit: 1744

Page 4

only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

# Claim Objections

- 7. Claims 22 and 33 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

  Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 22 states only an intended use of the brush head as being a toilet brush head and does not recite any structure that would require the brush head to be specifically a toilet brush head.

  Claim 33 states only an intended use of the wand and does not recite any further structure required by the wand.
- 8. Claim 10 is objected to because of the following informalities:

Art Unit: 1744

Claim 10 recites the limitation "the opposed end" in Line 3. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction is required.

#### Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claim 46 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 46 requires the abrasive layer of water-degradable material to be apertured. In the preliminary amendment on Page 8, the Applicant states that there is support for new claim 46 in Paragraph [0117]. However, there is not support in the Specification or Drawings that the abrasive layer of the water-degradable material is apertured.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 31-32 and 41-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 31, it is unclear as to what is meant by "if such a brush head is clamped by the jaw."

The term "agitation-degradable" which is found in each of claims 41-43 is unclear. The specification attempts to define "agitation-degradable" on Page 7, Paragraph 31 as "that the breakup time of a head, measured from beginning of agitation until the head is broken down into pieces all smaller than 2.54 cm in diameter, is less than 30 minutes, using the breakup measurement protocol of US patent 4,117,187." However, it is unclear to the examiner what that "protocol" is specifically and how it pertains to the Applicant's invention. Also in the Applicant's specification and Claim 42, agitation-degradable material is meant to be capable of essentially retaining its structural integrity when scrubbing a toilet bowl interior wall surface under water for at least one minute. What does this limitation mean? Would a change in the scrubbing force increase/decrease the length of time of the retention of structural integrity? Would an increased frictional surface of a toilet bowl wall increase/decrease the length of time of the retention of structural integrity? Also, it is unclear as to what is meant by "agitation" in general—is a "toilet flush" (a flush of water) considered to be agitation?

# Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

<sup>(</sup>b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

<sup>(</sup>e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

Art Unit: 1744

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-8, 10, 15, 17, 19-20, 23, 28, 30, 31, 33-35, 37, 38, 40, 44, and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Treacy et al., US 2004/0129296.

Treacy discloses the claimed invention including a brush head (58) suitable to be held by a cleaning device (50), wherein the brush head comprises a plurality of layers of a water-degradable material (Paragraph 53 states that there is a "folded or layered arrangement" of bristles, see Figure 14 which shows layers positioned "on top of each other" and held vertically to form a "stack" of layers, the layers which are biodegradable and easily and safely flushed in a toilet as stated in Paragraph 52). Water-dissolvable attachment means (158 also in conjunction with 160) is applied to the brush head adjacent an end of the rolled stack (see Figure 14) that holds that end of the stack together while at least a part of an opposed end of the stack is capable of spreading out between layers (Figure 14; Paragraph 52 and first portion of Paragraph 53). The waterdissolvable attachment means may be an adhesive or threads (Paragraph 52 states that a variety of retaining means other than a sleeve is contemplated including "string, winding, adhesive and/or other materials.") In the layers are inherently held together by the "adhesive or threads" the layers are bonded by the pressure exerted by the adhesives/threads. The brush head has been at least partially impregnated with a chemical composition (162; Paragraph 54). The chemical composition comprises a surfactant (Paragraph 54 states that a cleaning solution "may optionally be pre-applied

Art Unit: 1744

to the cleaning means", the cleaning solution itself is a "surfactant" in that surfactant as defined as "a surface-active substance" according to The American Heritage® Dictionary of the English Language, Fourth Edition Copyright © 2000 by Houghton Mifflin Company.") The plurality of layers has bristle segments adjacent an opposed end (see Figure 14). The brush head comprises at least two plies of the water degradable material (Figure 14; "plies" is defined as "a layer, as of doubled-over cloth" by The American Heritage® Dictionary of the English Language, Fourth Edition Copyright © 2000 by Houghton Mifflin Company.) An end of the brush head is formed with an axially extending notch (see Figure 14, notches closer to the portion 158 opposite a bristle end). The brush head is stored in a sealed pouch (815) having a circumferential pouch tear line (such as a perforated foil, see Paragraph 64). The pouch does not contain more than one brush head (see Paragraph 64). The brush head is a toilet brush head (see Paragraph 32). There is a wand for the brush head comprising a handle (50) having an internal axial cavity (see Figure 15), a lower opening (near where the reference numeral "142" is located in Figure 15), and a radial opening (90), an actuator having a projection extending through the radial opening (62 and 86; see Paragraph 45 which describes that "the actuation means "62" may be axially movable via the cooperation of the post "86" " and also see Paragraph 58), a connection rod linked to the projection (72 and 130) mounted in the handle cavity (see Figure 15), and a jaw linked to the rod (140; see Paragraph 59), wherein the wand is constructed and arranged such that a first movement of the projection will move the jaw to a first position suitable to release a brush head and a second movement of the

Art Unit: 1744

projection will move the jaw to a second position suitable to clamp a brush head if the brush head has been inserted into the jaw (Paragraph 59). The rod may have a cross-shaped cross sectional appearance (see "72" in Figure 10). The wand has been attached to a separately formed extension (52), the extension having a hanger hole (64). The jaw has an axially extending tongue projection (156) to interfit with a brush head having an axial notch (Paragraph 52, see Figure 14). The wand is for holding a toilet brush head and it is has been inserted into the jaw (58; see Figures). A portion of the handle adjacent the jaw is curved and a portion of the rod extends through that curved portion (see Figures 11, 15, 16a-c). The attachment means comprises no more than one-third of the head axial length (see Figures.)

12. Claims 1, 2, 7-9, 11-12, 23, 29, and 33-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Federico et al., USPN 5,630,243.

Federico et al. discloses the claimed invention including a brush head (where "11" is pointing in Figure 9, also shown in Figure 6B) suitable to be held by a cleaning device (1), wherein the brush head comprises a plurality of layers of a water-degradable material (Column 4 Lines 28-29 require the brush head to be biodegradable, and Column 4 Lines 64 to Column 5 Line 4 state that the brush head is intended to be flushed in a toilet). The layers form a stack that has been folded back upon itself (there are layers 12 and 13, wherein 12 is folded upon itself, see Figure 6B). The brush head has been at least partially impregnated with a chemical composition (Column 4 Lines 31-33), wherein the chemical composition comprises a surfactant (the detergent/disinfectant/deodorant is a surface acting agent when activated by water,

Column 4 Lines 33-36). The chemical (before it's activated) inherently comprises 0% water, since water activates the cleaning action of the dry mix of detergent/disinfectant/deodorant. The brush head is of a single piece of material (Column 4 Lines 28-29) that has been repetitively folded back on itself in accordion fashion (see Figure 6B). The head comprises four layers (as stacked shown in Figure 6B). There is also a wand comprising a handle having an internal axial cavity (see Figures 1A-5), a lower opening communicating with the cavity (see Figure 1A where the portion "9" is near that is an opening) and a radial opening (where "2" is situated to move within bottom of the outer structure in Figure 1A), an actuator having a projection (2) operating through the radial opening (see Figures 1A-2), a connecting rod linked to the projection in the handle cavity (4), and a jaw (7 and 8) linked to the rod (via 9) which extends out the handle through the lower opening (see Figure 1A), wherein the wand is constructed and arranged such that a first movement of the projection will move the jaw to a first position to release a brush head and a second movement of the projection will move the jaw to a second position suitable to clamp a brush head (Column 4 Line 49 to Column 5 Line 4). There is at least one outer contact "ear" formed on the jaw (being the "raised" curvature joint area at the connection of "7" and "5" shown in Figure 2). The wand is for holding a toilet brush head (Column 3 Lines 13-42). The brush head portion "13" is inserted into the jaw (see Figure 7). A portion of the handle adjacent the jaw is curved (see Figures 2-5 near where the reference numeral "5" is located) and a portion of the rod extends through the curved portion (see Figures 2-5). The handle has a lower drain hole (in Figures 3-5 behind the element referred to as "9" there is a lower

Art Unit: 1744

opening that is capable of serving as a drain.) The jaw can be opened and closed by movement of a lever (9) positioned adjacent to the brush head (see Figures 2-5). The brush and jaw are "interfit" by a recess and projection connection (there is a recess within "12" and a projection being "7" and "8").

13. Claims 1, 7, 8, 37, 38, and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Hagelberg, USPN 4,031,673.

Hagelberg discloses the claimed invention including a brush head (1) suitable to be held by a cleaning device (7), wherein the brush head comprises a plurality of layers of a water-degradable material (see layers "2", "3", and "4" in Figure 5 or layers "26", "28", and "29" in Figure 8, and can be "flushed" so therefor is "water-degradable", Column 4 Lines 18-21) and the two layers are positioned on top of each other to form a stack (see Figures 5 and 8). The brush head is at least partially impregnated with a chemical composition (4 or 29; Column 2 Lines 18-20). The chemical composition comprises a surfactant (the "soda" acts on a surface to be cleaned). The layers of the stack at the bottom and the top are not impregnated with a surfactant while a layer in between ("4" or "29") is impregnated with the surfactant. There is a handle (6) having a lower clamping jaw (13; Column 3 Lines 37-40), and a brush head to be held in the jaw (1; see Figure 6). The jaw can be opened and closed by movement of a radially extending projection remote from the position of the brush head (the "projection" may either be "9" or "14"; see Figure 6). At least one layer of the water-degradable material is abrasive (26; Column 2 Lines 24-29, Column 4 Lines 13-21).

Art Unit: 1744

14. Claims 1-4, 6, 12, 15, and 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Farrell, USPN 2,666,223.

Farrell discloses the claimed invention including a brush head (12 or 102) suitable to be held by a cleaning device (10 or 100), wherein the brush head comprises a plurality of layers of a water-degradable material (14 or 110; and can be "flushed" and disintegrates in water, Column 3 Lines 7-24, Column 4 Lines 40-44) and the layers are positioned on top of each other to form a stack (see Figures 2 and 4). The material is folded back upon itself (when the corners are gathered to form the "balloon", see Figure 2; or see Figure 4, Column 3 Lines 35-42). There is a water-dissolvable attachment means (the neck "18" has a material collar "24" that "holds" that end of the stack together and allows a part at an opposed end to "spread out", see Figures 1-2, Column 2 Lines 51-57; or 106, Column 3 Line 62 to Column 4 Lines 18). The attachment means is an adhesive (Column 2 Lines 44-47 or Column 3 Lines 68-70). The layers are held together and are bonded to each other by pressure exerted by "24" or by "106"). The head comprises at least four layers in a stack (shown in Figures 2, or see Figure 4). The brush head comprises at least two plies of the water degradable material (see Figures 2 and 4; "plies" is defined as "a layer, as of doubled-over cloth" by The American Heritage® Dictionary of the English Language, Fourth Edition Copyright © 2000 by Houghton Mifflin Company.) There is a separate water-dissolvable cover positioned over a portion of the brush head to which the adhesive has been applied (the cover is 24 or 106 that covers the upper portion, see also Column 2 Lines 44-47 and Column 3 Lines 68-70). The head is a toilet brush head (see Title).

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagelberg, USPN 4,031,673.

Art Unit: 1744

Hagelberg discloses all elements above, including a brush head to be held by a cleaning device wherein the brush head comprises a plurality of layers of a water-degradable material positioned on top of each other to form a stack of layers, wherein the layers of the stack at the bottom and top of the stack are not impregnated with a surfactant, while a layer of the stack between the top and bottom layers ("4" or "29") is impregnated with a surfactant. Hagelberg does not include that there are a plurality of layers between the top and bottom layer. It would have been obvious for one of ordinary skill in the art to provide several layers impregnated with a surfactant between the top and bottom layers since it is a duplication of parts and would have the same results. The court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced, In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). See MPEP 2144.04 (VI) B.

16. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagelberg, USPN 4,031,673.

Hagelberg discloses all elements above, including a brush head to be held by a cleaning device wherein the brush head comprises a plurality of layers of a water-degradable material positioned on top of each other to form a stack of layers, wherein the layers of the stack at the bottom and top of the stack are not impregnated with a surfactant, while a layer of the stack between the top and bottom layers ("4" or "29") is impregnated with a surfactant. Hagelberg does not include that there are "five external side surfaces" that are free of surfactant, although all of the external surfaces of Hagelberg are free of surfactant. It would have been obvious for one of ordinary skill in

Art Unit: 1744

the art to provide at least five external side surfaces (or subsurfaces) to be free of surfactant since it is a duplication or repetition of the outer layer surfaces and would have the same results. The court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced, In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). See MPEP 2144.04 (VI) B.

17. Claims 16 and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Treacy et al., US 2004/0129296 in view of Manning et al., USPN 4,755,421.

Treacy et al. discloses all elements above including that the head is a nonwoven fibrous web of cellulosic material (Paragraph 33), however does not disclose that the material is hydroentagled or that the layers of material are "agitation-degradable."

Manning et al. discloses a nonwoven fibrous web material that has a sufficient wet strength and is capable of disintegration when disposed through a plumbing system (Column 1 Lines 5-11.) The web is hydroentangled so that there is a wet strength for use and is capable of disintegrating under mild agitation in water (Column 4 Lines 9-38). Further, break up time of the hydroentangled fibrous web may surpass one minute (see Examples, Tables I-III). The device is for use as a "wet wiper" (Column 3 Lines 10-16).

It would have been obvious for one of ordinary skill in the art to modify the cellulose material of Treacy et al. to be hydroentangled, as Manning et al. teach, so that the material has a high wet tensile strength and breaks up under agitation such as flushing of a toilet.

18. Claims 16 and 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell, USPN 2,666,223 in view of Manning et al., USPN 4,755,421.

Art Unit: 1744

Farrell discloses all elements above including that the head is a nonwoven fibrous material such as paper (Column 2 Lines 16-18), however does not disclose that the material is hydroentagled cellulose or that the layers of material are "agitation-degradable."

Manning et al. discloses a nonwoven fibrous web material that has a sufficient wet strength and is capable of disintegration when disposed through a plumbing system (Column 1 Lines 5-11.) The web is hydroentangled so that there is a wet strength for use and is capable of disintegrating under mild agitation in water (Column 4 Lines 9-38). Further, break up time of the hydroentangled fibrous web may surpass one minute (see Examples, Tables I-III). The device is for use as a "wet wiper" (Column 3 Lines 10-16).

It would have been obvious for one of ordinary skill in the art to substitute the material of Farrell to be hydroentangled cellulose, as Manning et al. teach, so that the material has a high wet tensile strength and breaks up under agitation such as flushing of a toilet.

19. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Treacy et al., US 2004/0129296.

Treacy et al. discloses all elements above, including that the first end of the brush head is formed with an axially extending notch, see Figure 14, notches closer to the portion 158 that are opposite a bristle end (leftmost side of Figure 14). Treacy et al. does not disclose that the notch tapers axially from an outer portion of the brush head towards a bristle portion of the brush head. It would have been obvious for one of ordinary skill in the art to modify the notch so that it tapers axially from an outer portion

Art Unit: 1744

of the brush head towards a bristle portion of the brush head since the Applicant has not disclosed that the notch tapering provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally as well with the notches of the brush head because the notches are used to aid in fitting the brush head to a wand or handle portion.

20. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Treacy et al., US 2004/0129296.

Treacy et al. disclose all elements above, however does not include that the tongue projection is triangular in shape. It would have been obvious for one of ordinary skill in the art to modify the tongue portion to be a triangular projection since the Applicant has not disclosed that the triangular projection provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally as well with the notches of the brush head because the tongue projection is used to aid in clamping a brush head having notches to a wand or handle portion.

# Allowable Subject Matter

21. Claims 24-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: None of the prior art made of record includes a handle having an internal cavity,

a lower opening, a radial opening, an actuator having a projection, a connecting rod linked to the projection, a jaw linked to the rod, two positions that clamp a brush head, and further a handle having teeth that extend radially into the cavity and a connecting rod that has radially outwardly extending teeth.

#### Conclusion

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert J Warden can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ROBERT J. WARDEN, SR.

SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 1700

hut & Wardon S.